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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,415	02/26/2004	Tetsuya Sadowara	065905-0312	2797
23428 7590 03/26/2008 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
MCLEAN, NEIL R				
ART UNIT		PAPER NUMBER		
2625				
MAIL DATE		DELIVERY MODE		
03/26/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/786,415

Applicant(s)

SADOWARA, TETSUYA

Examiner

Neil R. McLean

Art Unit

2625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/CD/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments, see Remarks made in an Amendment filed 1/10/2008, with respect to the rejection(s) of claim(s) 1-11 under Yamamoto (US 5,675,717) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tsuji (US 7,224,481)

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 12-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji (US 7,224,481).

Regarding Claims 1-11: (Canceled)

Regarding Claim 12: (New)

An image forming apparatus used as a color-copying machine, a color printer and a network scanner, and connected with a network **(A MFP104 which is a color-four-drum MFP capable of performing full-color image reading, full-color printing, facsimile transmission, facsimile reception and the like is connected to the network 101 as described in Column 4, lines 6-9)**, comprising:

a scanner **(e.g., The MFP104 includes a scanner unit 201 which performs image reading and generates image data as described in Column 4, lines 31-32.)** configured to read an image of an original and generate image data;

a scanner image processor configured to perform image processing on the image data generated by the scanner **(e.g., A scanner IP unit 202 which performs an image process to the image data obtained by the scanner unit 201 as described in Column 4, lines 33-34.)**;

a storage configured to store the image data **(e.g., A core unit 206 temporarily stores the image signal and determines a path in accordance with how to use the MFP 104 as described in Column 4, lines 40-42.)**;

a data format converter configured to convert the image data stored in the storage to data of a predetermined format **(In the display unit 211, the image signal output from the core unit 206 is equivalent to the C, M, Y and K data, whereby it is necessary to again convert the input C, M, Y and K data into the R, G and B data by an inverse LOG conversion unit 1001. Then, in a gamma conversion unit 1002, output conversion is performed to the R, G and B data by using an LUT to cope**

with color characteristics of a display (monitor) 1004 such as a CRT or the like. More specifically, the conversion image data is once stored in a memory unit 1003 and then displayed on the display 1004 as described in Column 8, lines 42-55); and

a display configured to visually display the predetermined format data converted by the data format converter (**FIG. 10 is a block diagram showing the structure of the display unit 211 as described in Column 8, lines 42-54.**), wherein

the image data of a first format read and generated by the scanner is converted into the image data of a second format by the scanner image processor (**e.g., The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45)**), the second formatted image data is converted into the image data of a third format to be stored in the storage (**e.g., A compression system to be used in the compression unit 602 may be a general system such as JPEG (Joint Photographic Experts Group) system, JBIG (Joint Bi-level Image experts Group) system, ZIP system or the like as described in Column 6, lines 53-59).**), the third formatted image data is converted into the first formatted image data by the data format converter to be displayed on the display when the image forming apparatus is used as the color-copying machine, (**and then the C1, M1 and Y1 image signals are processed and transferred to the core unit 206 through an output masking unit 406, a gamma conversion unit 407 and a spatial filter 408 as described in Column 6, lines 53-59).**

the image data received from an external device through the network is stored in the storage in a fourth format, the fourth formatted image data is converted into the first formatted image data by the data format converter to be displayed on the display when the image forming apparatus is used as the color printer (**A CPU 503 performs a rasterizing image process which is called RIP (Raster Image Processing) according to need, and expands the PDL data into the raster image data. The expanded raster image data is stored in a high-speed accessible memory 505 such as a DRAM or the like for each of the C, M, Y and K color components. Here, it should be noted that, in each job, the raster image data is stored for each page. After then, the raster image data is transferred to the core unit 206 by the CPU 503, in accordance with the state of the printer unit 209 as described in Column 6, lines 14-23**), and

the image data generated from the original by the scanner is stored in the storage, or the format of the image data is converted to the third format to be stored in the storage, the third formatted image data is converted into the first formatted image data by the data format converter to be displayed on the display when the image forming apparatus is used as the network scanner (**e.g., A brightness/density conversion unit (LOG conversion unit) 405 includes an LUT (Look-Up Table) RAM. In the LOG conversion unit 405, the R, G and B brightness signals are conversion into C, M and Y density signals (called C1, M1 and Y1 signals), and then the C1, M1 and Y1 image signals are processed and transferred to the core unit 206**

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through an output masking unit 406, a gamma conversion unit 407 and a spatial filter 408 as described in Column 5, lines 36-43)..

Regarding Claim 13: (New)

The apparatus according to claim 12, wherein the first format is RGB (e.g., **The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45).**

Regarding Claim 14: (New)

The apparatus according to claim 12, wherein the second format is YMC (e.g., **The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45).**

Regarding Claim 15: (New)

The apparatus according to claim 12, wherein the third format is YCbCr (e.g., **A compression system to be used in the compression unit 602 may be a general system such as JPEG (Joint Photographic Experts Group) system, JBIG (Joint Bi-level Image experts Group) system, ZIP system or the like as described in Column 6, lines 53-59).**

Regarding Claim 16: (New)

The apparatus according to claim 12, wherein the fourth format is YMCK (**FIG. 7 is a block diagram showing the structure of the printer IP unit 207. In FIG. 7, numeral 701 denotes an output masking/UCR (under color removal) circuit which corrects the C1, M1 and Y1 signals and thus obtains the C, M, Y and K signals respectively representing toner colors of the image forming apparatus. Then, the output masking/UCR circuit 701 outputs the C, M, Y and K signals as described in Column 7, lines 6-12.**)

Regarding Claim 17: (New)

An image forming apparatus used as a color-copying machine, a color printer and a network scanner, and connected with a network (**A MFP104 which is a color-four-drum MFP capable of performing full-color image reading, full-color printing, facsimile transmission, facsimile reception and the like is connected to the network 101 as described in Column 4, lines 6-9**), comprising:

scanning means for reading an image of an original and generating image data (**e.g., The MFP104 includes a scanner unit 201 which performs image reading and generates image data as described in Column 4, lines 31-32.**);

image processing means for performing image processing on the image data generated by the scanning means;

storage means for storing the image data (**e.g., A core unit 206 temporarily stores the image signal and determines a path in accordance with how to use the MFP 104 as described in Column 4, lines 40-42.**);

data format converting means for converting the image data stored in the storage means to data of a predetermined format **(In the display unit 211, the image signal output from the core unit 206 is equivalent to the C, M, Y and K data, whereby it is necessary to again convert the input C, M, Y and K data into the R, G and B data by an inverse LOG conversion unit 1001. Then, in a gamma conversion unit 1002, output conversion is performed to the R, G and B data by using an LUT to cope with color characteristics of a display (monitor) 1004 such as a CRT or the like. More specifically, the conversion image data is once stored in a memory unit 1003 and then displayed on the display 1004 as described in Column 8, lines 42-55); and**

display means for visually displaying the predetermined format data converted by the data format converting means **(FIG. 10 is a block diagram showing the structure of the display unit 211 as described in Column 8, lines 42-54.), wherein**

the image data of a first format read and generated by the scanning means is converted into the image data of a second format by the image processing means, the second formatted image data is converted into the image data of a third format to be stored in the storage means **(e.g., A compression system to be used in the compression unit 602 may be a general system such as JPEG (Joint Photographic Experts Group) system, JBIG (Joint Bi-level Image experts Group) system, ZIP system or the like as described in Column 6, lines 53-59), the third formatted image data is converted into the first formatted image data by the data format converting means to be displayed on the display means when the image forming**

apparatus is used as the color copying machine **(and then the C1, M1 and Y1 image signals are processed and transferred to the core unit 206 through an output masking unit 406, a gamma conversion unit 407 and a spatial filter 408 as described in Column 6, lines 53-59),**

the image data received from an external device through the network is stored in the storage means in a fourth format, the fourth formatted image data is converted into the first formatted image data by the data format converting means to be displayed on the display means when the image forming apparatus is used as the color printer **(A CPU 503 performs a rasterizing image process which is called RIP (Raster Image Processing) according to need, and expands the PDL data into the raster image data. The expanded raster image data is stored in a high-speed accessible memory 505 such as a DRAM or the like for each of the C, M, Y and K color components. Here, it should be noted that, in each job, the raster image data is stored for each page. After then, the raster image data is transferred to the core unit 206 by the CPU 503, in accordance with the state of the printer unit 209 as described in Column 6, lines 14-23), and**

the image data generated from the original by the scanning is stored in the storage means, or the format of the image data is converted to the third format to be stored in the storage means, the third formatted image data is converted into the first formatted image data by the data format converting means to be displayed on the display means when the image forming apparatus is used as the network scanner **(e.g., A brightness/density conversion unit (LOG conversion unit) 405 includes an LUT**

(Look-Up Table) RAM. In the LOG conversion unit 405, the R, G and B brightness signals are conversion into C, M and Y density signals (called C1, M1 and Y1 signals), and then the C1, M1 and Y1 image signals are processed and transferred to the core unit 206 through an output masking unit 406, a gamma conversion unit 407 and a spatial filter 408 as described in Column 5, lines 36-43).

Regarding Claim 18: (New)

The apparatus according to claim 17, wherein the first format is RGB (e.g., **The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45).**

Regarding Claim 19: (New)

The apparatus according to claim 17, wherein the second format is YMC (e.g., **The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45).**

Regarding Claim 20: (New)

The apparatus according to claim 17, wherein the third format is YCbCr (e.g., **A compression system to be used in the compression unit 602 may be a general system such as JPEG (Joint Photographic Experts Group) system, JBIG (Joint Bi-**

level Image experts Group) system, ZIP system or the like as described in Column 6, lines 53-59).

Regarding Claim 21: (New)

The apparatus according to claim 17, wherein the fourth format is YMCK (**FIG. 7 is a block diagram showing the structure of the printer IP unit 207. In FIG. 7, numeral 701 denotes an output masking/UCR (under color removal) circuit which corrects the C1, M1 and Y1 signals and thus obtains the C, M, Y and K signals respectively representing toner colors of the image forming apparatus. Then, the output masking/UCR circuit 701 outputs the C, M, Y and K signals as described in Column 7, lines 6-12.)**

Regarding Claim 22: (New)

A method for displaying an image in an image forming apparatus used as a color-copying machine, a color printer and a network scanner, and connected with a network (**A MFP104 which is a color-four-drum MFP capable of performing full-color image reading, full-color printing, facsimile transmission, facsimile reception and the like is connected to the network 101 as described in Column 4, lines 6-9), comprising:**

reading an image of an original and generating image data (**e.g., The MFP104 includes a scanner unit 201 which performs image reading and generates image data as described in Column 4, lines 31-32.)**;

storing the image data in a storage (e.g., **A core unit 206 temporarily stores the image signal and determines a path in accordance with how to use the MFP 104 as described in Column 4, lines 40-42.**);

converting the image data stored in the storage to data of a predetermined format (**In the display unit 211, the image signal output from the core unit 206 is equivalent to the C, M, Y and K data, whereby it is necessary to again convert the input C, M, Y and K data into the R, G and B data by an inverse LOG conversion unit 1001. Then, in a gamma conversion unit 1002, output conversion is performed to the R, G and B data by using an LUT to cope with color characteristics of a display (monitor) 1004 such as a CRT or the like. More specifically, the conversion image data is once stored in a memory unit 1003 and then displayed on the display 1004 as described in Column 8, lines 42-55**); and

visually displaying the predetermined format data converted (**FIG. 10 is a block diagram showing the structure of the display unit 211 as described in Column 8, lines 42-54.**), wherein the image data of a first format read and generated is converted into the image data of a second format, the second formatted image data is converted into the image data of a third format to be stored in the storage (e.g., **A compression system to be used in the compression unit 602 may be a general system such as JPEG (Joint Photographic Experts Group) system, JBIG (Joint Bi-level Image experts Group) system, ZIP system or the like as described in Column 6, lines 53-59**), the third formatted image data is converted into the first formatted image data to be displayed when the image forming apparatus is used as the color- copying machine

(and then the C1, M1 and Y1 image signals are processed and transferred to the core unit 206 through an output masking unit 406, a gamma conversion unit 407 and a spatial filter 408 as described in Column 6, lines 53-59),

the image data received from an external device through the network is stored in the storage in a fourth format, the fourth formatted image data is converted into the first formatted image data to be displayed when the image forming apparatus is used as the color printer **(A CPU 503 performs a rasterizing image process which is called RIP (Raster Image Processing) according to need, and expands the PDL data into the raster image data. The expanded raster image data is stored in a high-speed accessible memory 505 such as a DRAM or the like for each of the C, M, Y and K color components. Here, it should be noted that, in each job, the raster image data is stored for each page. After then, the raster image data is transferred to the core unit 206 by the CPU 503, in accordance with the state of the printer unit 209 as described in Column 6, lines 14-23), and**

the image data generated from the original is stored in the storage, or the format of the image data is converted to the third format to be stored in the storage, the third formatted image data is converted into the first formatted image data to be displayed when the image forming apparatus is used as the network scanner **(e.g., A brightness/density conversion unit (LOG conversion unit) 405 includes an LUT (Look-Up Table) RAM. In the LOG conversion unit 405, the R, G and B brightness signals are conversion into C, M and Y density signals (called C1, M1 and Y1 signals), and then the C1, M1 and Y1 image signals are processed and transferred**

to the core unit 206 through an output masking unit 406, a gamma conversion unit 407 and a spatial filter 408 as described in Column 5, lines 36-43).

Regarding Claim 23: (New)

The method according to claim 22, wherein the first format is RGB (**e.g., The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45).**

Regarding Claim 24: (New)

The method according to claim 22, wherein the second format is YMC (**e.g., The R, G and B brightness signals are converted into C, M and Y density signals (called C1, M1 and Y1 signals as described in Column 5, lines 35-45).**

Regarding Claim 25: (New)

The method according to claim 22, wherein the third format is YCbCr (**e.g., A compression system to be used in the compression unit 602 may be a general system such as JPEG (Joint Photographic Experts Group) system, JBIG (Joint Bi-level Image experts Group) system, ZIP system or the like as described in Column 6, lines 53-59).**

Regarding Claim 26: (New)

The method according to claim 22, wherein the fourth format is YMCK (**FIG. 7 is a block diagram showing the structure of the printer IP unit 207. In FIG. 7, numeral 701 denotes an output masking/UCR (under color removal) circuit which corrects the C1, M1 and Y1 signals and thus obtains the C, M, Y and K signals respectively representing toner colors of the image forming apparatus. Then, the output masking/UCR circuit 701 outputs the C, M, Y and K signals as described in Column 7, lines 6-12.)**

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yeo et al. (US 6,198,842) discloses a system and method for generating bounded-loss color transformations employed in the compression and decompression of multi-spectral images is provided.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is (571)270-1679. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571.272.7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/N. R. M./

Examiner, Art Unit 2625

3/24/2008

/Gabriel I Garcia/

Acting SPE of Art Unit 2625